Mark Sorg
Creative Cabinet Company
1615 Meyer Road
Fort Wayne, Indiana 46803

Re: Renewal of Registered Operation Status,
003-13560-00247

Dear Mr. Sorg:

The application from Creative Cabinet Company, received on December 4, 2000, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.5, it has been determined that the following woodworking facility, to be located at 1615 Merger Road Fort Wayne, Indiana 46803 is classified as registered:

(a) One (1) Spray Booth with a maximum process rate of 0.032 set/hr, using dry filters to control particulate emissions.

(b) Four (4) natural gas fired Building Space Heaters with a total maximum capacity of 0.49 MMBtu/hr, and

(c) One (1) Woodworking Shop equipped with woodworking equipment, using dust collector to control particulate matters.

The following conditions shall be applicable:

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 6 (Particulate Rules)

Pursuant to CP 003-5689-00247, issued on May 6, 1996 the particulate matter (PM) from the wood working facility shall be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

For Creative Cabinet PM Emissions should not exceed 0.37 based on the above equation.

The particulate matter (PM) overspray from the surface coating facilities shall be prevented from being visibly detectable at the exhaust or accumulating on the rooftops or on the ground.

326 IAC 8-2-12 (Wood Furnitiure and Cabinet coating)

Pursuant to 326 IAC 8-2-12 (Wood Furniture and Cabinet coating), the surface coatings applied to wood furniture and/or wood components shall utilize one or more of the following application methods:

Airless Spray Application
Air-Assisted Airless Spray Application
Electrostatic Spray Application
Electrostatic Spray or Disc Application
Heated Airless Spray Application
Roller Coating
Brush or Wipe Application
Dip-and-Drain Application

This registration is a registration renewal issued to this source. The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the Office of Air Quality that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.5-4(a)(3). The annual notice shall be submitted to:

Compliance Data Section
Office of Air Quality
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015

no later than March 1 of each year, with the annual notice being submitted in the format attached.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

ERG/RB

cc: File - Allen County
Allen Health Department
Air Compliance - Jennifer Dern
Permit Tracking - Janet Mobley
Technical Support and Modeling - Michele Boner
Compliance Data Section - Karen Nowak

Registration
Annual Notification

This form should be used to comply with the notification requirements under 326 IAC 2-5.5-4(a)(3).

Company Name: Creative Cabinet Company
Address: 1615 Meyer Road
City: Fort Wayne Indiana
Authorized individual: Mark Sorg
Phone #: (219) 426-8632
Registration #: 003-13560-00247

I hereby certify that Creative Cabinet is still in operation and is in compliance with the requirements of Registration 003-13560-00247.

Name (typed):
Title:
Signature:
Date:

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Registration Renewal

Source Background and Description

Source Name:	Creative Cabinet Company
Source Location:	1615 Meyer Road, Fort Wayne, Indiana 46803
County:	Allen
SIC Code:	2434
Operation Permit No.:	003-13560-00247
Permit Reviewer:	ERG/RB

The Office of Air Quality (OAQ) has reviewed an application from Creative Cabinet Company relating to the renewal of registered operation of a wood cabinet manufacturing facility.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

(a) One (1) Spray Booth with a maximum process rate of 0.032 set/hr, using dry filters to control particulate emissions.

(b) Four (4) natural gas fired Building Space Heaters with a total maximum capacity of 0.49 MMBtu/hr, and

(c) One (1) Woodworking Shop equipped with woodworking equipment, using dust collector to control particulate matters.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

New Emission Units and Pollution Control Equipment Receiving Advance Source Modification Approval

There are no new sources that require prior approval.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

(a) Registration CP003-5689-000247, issued on May 6, 1996.

All conditions from previous approvals were incorporated into this permit.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
5-1	Spray Booth	18.75	3.5	17,000	Ambient

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

A complete application for the purposes of this review was received on December 4, 2000.

Emission Calculations

See Appendix A of this document for detailed emissions calculations Appendix A, pages 1 through 5.)

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency."

Pollutant	Potential To Emit (tons/year)
PM	5.76
PM-10	1.38
SO_2	0.00
VOC	8.02
CO	0.20
NO_x	0.20
HAPs	7.70

(a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all criteria pollutants are less than 100 tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.

(b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination HAPs is greater than or equal to twenty-five (25) tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.

(c) The potential to emit (as defined in 326 IAC 2-7-1 (29) of all criterial pollutants is less than 25 tons per year and greater than 5 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-5.5.

Actual Emissions

No previous emission data has been received from the source.

Limited Potential to Emit

Process/Facility	Process Rate (Pounds/hr)	Allowable Emissions	
		PM (pounds/hr)	VOC (pounds/hr)
Wood working	55.46	0.37*	N/A
Surface Coating	N/A	N/A	8.02**

* Complies with 326 IAC 6-3
** Complies with 326 IAC 8-2-12

County Attainment Status

The source is located in Allen County.

Pollutant	Status
PM-10	Attainment
SO_2	Attainment
NO_2	Attainment
Ozone	Attainment
CO	Attainment
Lead	Attainment

(a) Volatile organic compounds (VOC) and oxides of nitrogen (NOx) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Allen County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(b) Allen County has been classified as attainment or unclassifiable for all other criterial pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Source Status

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	0.15
PM10	0.11
SO_2	0.00
VOC	8.02

Pollutant	Emissions (ton/yr)
CO	0.20
NO_x	0.20

(a) This existing source is not a major stationary source because even though it is one of the 28 listed source categories, it does not emit 100 tons per year or greater of any regulated pollutants.

(b) These emissions were based on dates provided in the TSD of registrants 003-5689-00247.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source, including the emissions from this permit CP-103-13560-00247, is still not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

(a) Each criteria pollutant is less than 100 tons per year,

(b) A single hazardous air pollutant (HAP) is less than 10 tons per year, and

(c) Any combination of HAPs is less than 25 tons/year.

This status is based on all the air approvals issued to the source. This status has been verified by the OAQ inspector assigned to the source.

Federal Rule Applicability

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP) (326 IAC 14 and 40 CFR 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 8-2-12 (Wood Furniture and Cabinet coating)

Pursuant to 326 IAC 8-2-12 (Wood Furniture and Cabinet coating), the surface coatings applied to wood furniture and/or wood components shall utilize one or more of the following application methods:

Airless Spray Application
Air-Assisted Airless Spray Application
Electrostatic Spray Application
Electrostatic Bell or Disc Application
Heated Airless Spray Application
Roller Coating
Brush or Wipe Application
Dip-and-Drain Application

Air atomization spray application is used for coating and stain, and airless spray application is used for sealer. Both methods comply with the requirement.

326 IAC 6-3-2 (Process Operations)

Pursuant to CP 003-5689-00247, issued on May 6, 1996 the particulate matter (PM) from the wood working facility shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

For Creative Cabinet PM Emissions should not exceed 0.37 based on the above equation.

The dust collector shall be in operation at all times the woodworking facility is in operation, in order to comply with this limit.

Conclusion

The construction and operation of this woodworking operation shall be subject to the conditions of the attached proposed Registration 003-13560-00247.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler

Company Name: **Creative Cabinet Company**
Address City IN Zip: **1615 Meyer Road**
CP: **003-13560**
Plt ID: **003-00247**
Reviewer: ERG/RB
Date: December 14, 2000

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
0.5	4.4

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.0	0.0	0.0	0.2	0.0	0.2

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).
See page 2 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler
HAPs Emissions

Company Name: **Creative Cabinet Company**
Address City IN Zip: **1615 Meyer Road**
CP: **003-13560**
Plt ID: **003-00247**
Reviewer: ERG/RB
Date: December 14, 2000

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	4.599E-06	2.628E-06	1.643E-04	3.942E-03	7.446E-06

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	1.095E-06	2.409E-06	3.066E-06	8.322E-07	4.599E-06

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations

Company Name: **Creative Cabinet Company**
Address City IN Zip: **1615 Meyer Road**
CP: **003-13560**
Plt ID: **003-00247**
Reviewer: ERG/RB
Date: December 14,

Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
Stain	8.2	66.71%	0.0%	66.7%	0.0%	21.00%	4.00000	0.032	5.47	5.47	0.70	16.80	3.07	1.38	26.05	10%
Sealer	7.2	83.92%	0.0%	83.9%	0.0%	9.00%	8.00000	0.032	6.04	6.04	1.55	37.12	6.78	1.17	67.14	10%
Coat	6.9	61.10%	0.0%	61.1%	0.0%	30.12%	3.50000	0.032	4.22	4.22	0.47	11.33	2.07	1.19	14.00	10%
Solvent	7.1	100.00%	0.0%	100.0%	0.0%	0.00%	1.25000	0.032	7.08	7.08	0.28	6.80	1.24	0.00	ERR	
Potential Emissions			**Add worst case coating to all solvents**								**1.83**	**91.06**	**8.02**	**1.38**		

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

Appendix A: Emissions Calculations
Woodworking Operations
Company Name: **Creative Cabinet Company**
Address City IN Zip: **1615 Meyer Road**
CP: **003-13560**
Plt ID: **003-00247**
Reviewer: ERG/RB
Date: December 14, 2000

Process	Maximum Rate	Estimate Emission Rat	Potential Emissions	Control Efficiency	Post Control Emissions		Allowable Emissions
	(lbs/hr)	(lbs/hr)	(tons/yr)	(percentage)	(tons/yr)	(lbs/hr)	(lbs/hr)
Woodworking	55.46	1	4.38	99	0.0438	0.01	0.37

Appendix A: Emissions Calculations
Total Potentional Emissions

Company Name: **Creative Cabinet Company**
Address City IN Zip: **1615 Meyer Road**
CP: **003-13560**
Plt ID: **003-00247**
Reviewer: ERG/RB
Date: December 14, 2000

Potential Emissions (Tons Per Year)

	PM*	PM10*	SO2	NOx	VOC	CO
Combustion	0.0	0.0	0.0	0.2	0.0	0.2
Woodwoorking	4.38	0.438				
Surface coating	1.38	1.38			8.02	
Total	**5.76**	**1.818**	**0**	**0.2**	**8.02**	**0.2**

Controlled Emissions (Tons Per Year)

	PM*	PM10*	SO2	NOx	VOC	CO
Combustion	0.0	0.0	0.0	0.2	0.0	0.2
Woodwoorking	0.0438	0.00438				
Surface coating	0.1104	0.1104			8.02	
Total	**0.1542**	**0.11478**	**0**	**0.2**	**8.02**	**0.2**